2.44 USGS-020

WELL ID: 469

- 1. Project Name: Pump Removal and Deviation Logging for FY 2003
- 2. Well Location: Southeast of INTEC
- 3. Date Maintenance Performed: Started: 11/20/02 Completed: 12/04/02
- 4. Video Log Information: Video logging was performed on 11/20/02.
- 5. Deviation Log Information: Deviation logging was performed on 11/20/02.
- 6. Maintenance Performed: Maintenance at USGS-20 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
- 7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
- 8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

WELL ID 469	Well Modification Log	<i>tion Log</i> — START DATE	END DATE	12/04/02	
PROJECT NAME —Pump Removal and Borehole Deviation Logging FY 03	tion Logging FY 03	INSTALLATION TEAM	Dynatec		ı
Reason for modification: Pump removed to perform a deviation log on the borehole	viation log on the bore		Elevation of brass cap?	cap? Not Changed	nged
			- Stick up of well casing?	sing? Not Changed	nged
Is this a pump replacement?	If wes was pump returned to original depth?	NA NA	Well Description	sfactory	Needs repair
yes		-	Casing condition	×	
Are measurements from top of casing or land surface? NA			Concrete pad	×	
	:		Guard post	×	
	Pump Modification		Screen	×	
Use diagram explain modification	Туре		Lock & cap	×	
	Manufacturer		Discharge Line (Riser Pipe) Modification	oe) Modification	
	Model #		Material		
	Pump length		Diameter	J. P.	bal
	Top of pump		Height above ground	NOTWIE	
	Bottom of pump		Denth BLS		
	Inlet depth	Pelyj			
	Horse power	100/	Water Level Access Line Modification	Modification	
	Flow rate	V 101	Material		
	Head	V	Diameter	Olijik	Pro
	Volts, Amps. Kw		Height above ground (stick-up)	NOT MON	
	Photos, variety, var		Depth BLS		
	Phase			\	
	Material		Measure Point		
	Motor leads/Plugs		Height above ground (stick-up)	Not Modified	
	Protective Casina		Well Casing		1
	Matarial		Material		
	Material	paul	Diameter	~	
>	Diameter	Not Mou	Height above ground (stick-up)	Modificon,	
	Height above ground (stick-up)		Depth BLS	2	
Comments:	he pump and pipe we	The pump and pipe were replaced to their original depths.	depths.		
	Deviation log was performed on 11/20/02.	ormed on 11/20/02.			
Video Logs: yes	X no date	11/20/02 Signatu	Signature and date:	Mike Towler 12/10/02	10/02
Well jetted /cleaned: yes	yesx	date			
Performed by:	Dynatec				

Figure 2-45. Well modification log for USGS-20.

2.45 USGS-048

WELL ID: 497

1. Project Name: INTEC Well Maintenance for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/6/03 Completed: 5/6/03

4. Video Log Information: No video logging was performed.

- 5. Maintenance Performed: Maintenance at USGS-048 consisted of replacing the existing surface pad. On 5/6/03, the existing surface pad was removed using crowbars and hammers. A new pad was installed the same day.
- 6. Observations Recorded: Concrete intended to stabilize impingement posts is positioned above ground level due to excavation in the area. The brass cap should be resurveyed.
- 7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: B. Reynolds/W. Jolley

Crew: D. Waddoups and Joe Lambert

WELL ID 497 WELL ID USGS-048	Well Modification Log	tion Log START DATE 5/6/03	FND DATE	2/6/03	
PROJECT NAME -INTEC Well Maintenance for FY 03.		INSTALLATION TEAM	Dynatec		ı
Reason for modification: Degredation of the surface pad.			Elevation of brass cap? Resurvey	cap? Resurvey	
			Stick up of well casing? Not Changed	sing? Not Chang	pə
Is this a pump replacement?	If ves was pump returned to original depth?	th? NA	Well Description	Satisfactory	Needs repair
yes		yes no	Casing condition	×	
Are measurements from top of casing or land surface? NA	_		Concrete pad	×	
			Guard post	×	
	Pump Modification		Screen	Ž	
Use diagram explain modification	Туре		Lock & cap	×	
	Manufacturer		Discharge Line (Riser Pipe) Modification	oe) Modification	
	Model #		Material		
	Pump length		Diameter	Jalisi	No.
	Top of pump		Height above ground	NOT MON	
	Bottom of pump	/Ø	(Stick-up)	2	
	Inlet depth	9416		: :	
	Horse power	Pon	Water Level Access Line Modification	• Modification	
	Flow rate	Pa	Material		
	Teed H		Diameter		- Pa
	Wolfe Ampe Kw		Height above ground (stick-up)	TON	
	voits, Arrips, nw		County Dist		
	Phase		Deptin BLS		
	Material		Measure Point	-	
	Motor leads/Plugs		Height above ground (stick-up)	Not Modified	
	Protective Casina		Well Casing		
			Material		
	Material	pos	Diameter	Dallir	
>	Diameter	MODING MODING	Height above ground (stick-up)	TOT HOD	
	Height above ground (stick-up)		Depth BLS		
S. Community	eplaced surface pad	Replaced surface pad. Brass cap should be resurveyed	veved		
l	- -	-	,		
Video Logs: yes	no_Xdate_	Signat	Signature and date:	Mike Towler 12/10/02	0/02
Well jetted /cleaned: yes	yesX	date			
Performed hv:	Dynatec				
י לא הסוווסת אלי	באוומוגב				

Figure 2-46. Well modification log for USGS-048.

2.46 USGS-049

WELL ID: 498

1. Project Name: INTEC Well Maintenance for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/7/03 Completed: 5/7/03

4. Video Log Information: Video logging was not performed on this well.

- 5. Maintenance Performed: Maintenance at USGS-049 was originally planned to consist of replacing the existing surface pad; however, it was in good shape. The field crew discovered that the problem was a void below the surface pad (approximately 3 to 6 in.). The void was filled with surface gravel from the surrounding area.
- 6. Observations Recorded: The concrete surface pad and impingement posts are were excellent condition.
- 7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: B. Reynolds/W. Jolley

Crew: S. Tawater, M. Becker, and I. Perkes

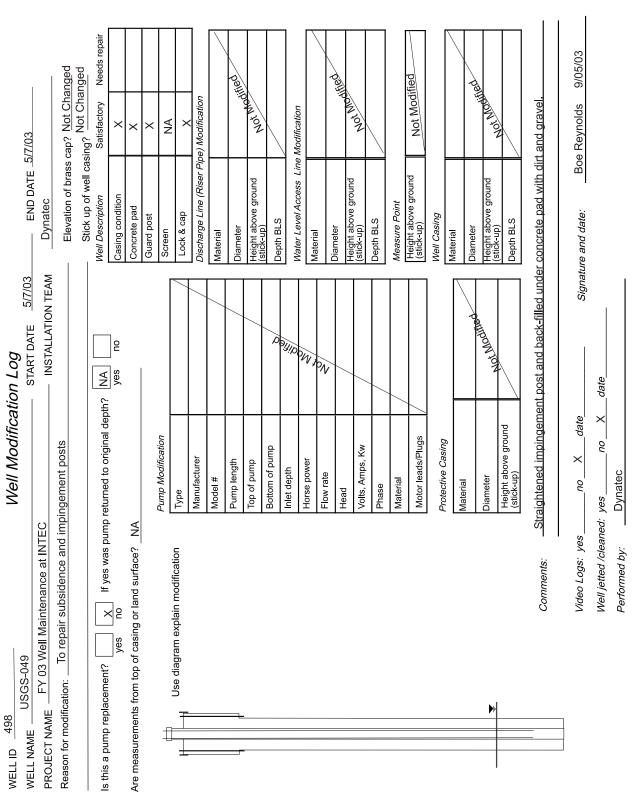


Figure 2-47. Well modification log for USGS-049.

2.47 USGS-051

WELL ID: 500

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: INTEC

3. Date Maintenance Performed: Started: 5/7/03 Completed: 5/12/03

- 4. Video Log Information: Video logging was performed on 5/7/03. There was no need to jet and clean the borehole.
- 5. Maintenance Performed: Maintenance at USGS-051 included removing the 1.5-hp pump, discharge/access pipe, and electrical assembly for logging; replacing old galvanized pipe with 1.25-in., stainless-steel discharge line and a 1-in., stainless-steel access line; and replacing the electrical wire with new 8-gauge wire equipped with a 30A/600V plug (NEMA #17-L30). The pump was energized to ensure that it operates properly (pumped 3 gal per minute) on 5/12/03.
- 6. Observations Recorded: The surface completion pad needs repair, but the impingement posts were in good condition.
- 7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: B. Reynolds/L. Lopez

WELL ID 500	Well Modification Log	ation Log		0000	
WELL NAMEUSGS-USI		START DATE	END DATE	0/17/02	
PROJECT NAME — BOTETIOIE DEVIATION LOGGING		INSTALLATION TEAM	Dynatec		
Reason for modification: _ Replace galvanized access and discharge lines with stainless steel. Replaced	nd discharge lines w	ith stainless steel. Replaced	— Elevation of brass of the second	Elevation of brass cap? Not Changed	
old wiring with new 8 gauge wire	re.		Stick up of well cas	Stick up of well casing? Not Changed	
Is this a primp replacement?	If ves was prime returned to original denth?	T X X	Well Description	Satisfactory Needs repair	. 느
yes no		٦	Casing condition	×	
Are measurements from top of casing or land surface? Land Surface	d Surface		Concrete pad	×	Γ
	:		Guard post	×	
noite of the control	Pump Moditication		Screen	×	
	Туре		Lock & cap	×	
	Manufacturer	bailied	Discharge Line (Riser Pipe) Modification	e) Modification	1
	Model#	Not Mice	Material	Stainless Steel	_
	Pump length		Diameter	1.25 in.	
	Top of pump	497 ft bls	Height above ground	3#	
	Bottom of pump	Approximately 500.2 ft	Depth BLS	497 ft	1
	Inlet depth	499.2 ft bls	Water I evel Access ine Modification	Modification	7
	Horse power	Not Modified	Material		_
	Flow rate	3 gpm	200	Stainless Steel	-
	Head	Not Measured	Diameter	1 in.	
	Volts, Amps, Kw		Height above ground (stick-up)	3 ft	
	Phase	Wadified Noting	Depth BLS	485.3 ft	
	Material		Measure Point		
	Motor leads/Plugs	8 gauge/600V, 30A plug	Height above ground (stick-up)	Not Modified	П
	Protective Casing		Well Casing		1
	Circle Constant		Material	97	
	Viate a	Suo:	Diameter	MOITE J. J.	
•	Diameter	MODIFICATION	Height above ground (stick-up)	TO WOL	1
	Height above ground (stick-up)	TOPA .	Depth BLS		
Comments: ——					
	no date	2/7/03	Signature and date: Bo	Boe Revnolds 5/15/03	Ī
Well jetted /cleaned: yes	yesx	date			
Performed by:	Dynatec				

Figure 2-48. Well modification log for USGS-051.

2.48 USGS-073

WELL ID: 522

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: TRA parking lot

3. Date Maintenance Performed: Started: 6/27/03 Completed: 10/24/03

4. Video Log Information: Video logging was not performed on this well.

5. Maintenance Performed: Maintenance at USGS-073 included the installation of a 10-in.-diameter, carbon-steel section of casing such that the top of the casing sticks up 3 ft. The surface casing was completed with a cement surface pad, a lockable well cap, and four cement jersey barriers surrounding the well to prevent damage to the well by automobile traffic. The 6.6-in. well casing was extended to 2.5 ft above ground surface. A single-phase, 1/2-hp, Rediflo 2 pump was installed at 118 ft to monitor perched water. An access line was installed to 113 ft bls. The pump, however, was not functioning due to a wire that was cut approximately halfway down, so the pump was pulled, rewired, and reinstalled in October.

The measuring point of the well should be resurvey to measure the height more accurately than is possible with field measurements.

6. Observations Recorded: None.

7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: B. Reynolds/L. Lopez

24/03		y Not Changed		Satisfactory Needs repair	×	×	×	×	×	Aodification	Stainless Steel	1 in.	25#	118#	dification		Stainless Steel	1 in.	2.5 ft	113 ft		2.5 ft		Carbon Steel	6.6 inch	2.5 ft	62 ft	ne middle of the TRA	The pump was rewired	 Boe Reynolds 8/5/03		
3 END DATE10/24/03	Dyn	Elevation of brass cap?	ı	Well Description Se	Casing condition	Concrete pad	Guard post	Screen	Lock & cap	Discharge Line (Riser Pipe) Modification	Material	Diameter	Height above ground	Depth BLS	Water Level Acress Line Modification	Material Material		Diameter	(stick-up)	Depth BLS	Measure Point	Height above ground (stick-up)	Well Casing	Material	Diameter	Height above ground (stick-up)	Depth BLS	Borehole is located in the	untional due to a cut wire.	Signature and date: Boe Re		
<i>tion Log</i> — START DATE <u>6/27/03</u>	INSTALLATION TEAM	ing with a lockable well cap.		h? NA					Submersible	Grundfos	RediFlow 2	1 ft	118 ft bls	119 ft bls	119 ft bls	.5 hp	Not Measured	86.8 ft	Not Recorded	1 phase	Stainless Steel	Standard RediFlow 4 prong			Carbon Steel	10 in.	3 ft	Installed the .5 horse pump to obtain a trickle sample. Borehole is located in the middle of the TRA	parking lot. Pump was installed in July, but was not funtional due to a cut wire. The pump was rewired	Signat Signat	date	
Well Modification Log	tenance	l a pump and surface cas	hole in the TRA parking lot.	If yes was pump returned to original depth?	-	Sasing	2	Modification		Manufacturer	Model #	Pump length	Top of pump	Bottom of pump	Inlet depth	Horse power	Flow rate	Head	Volts, Amps, Kw	Phase	Material	Motor leads/Plugs S	Protective Casing	Material	Matchiai	Diameter	Height above ground (stick-up)	Installed the .5 horse pur	parking lot. Pump was in		ed: yesx	Dynatec
WELL ID522	PROJECT NAME FY 03 Sitewide Wide Well Maintenance	Reason for modification:Enable accessability, install a pump and surface casing with a lockable well cap.	This well was located under a man hole in the T	s this a pump replacement? X If yes was pur	yes	Are measurements from top of casing or land surface? <u>Casing</u>		I lee diagram explain modification																		>				Video Logs: yes_	Well jetted /cleaned: yes	Performed by:

Figure 2-49. Well modification log for USGS-073.

2.49 USGS-085

WELL ID: 534

- 1. Project Name: Pump Removal and Deviation Logging for FY 2003
- 2. Well Location: Northwest of CFA
- 3. Date Maintenance Performed: Started: 11/25/02 Completed: 12/03/02
- 4. Video Log Information: Video logging was performed on 11/26/02.
- 5. Deviation Log Information: Deviation logging was performed on 11/26/02.
- 6. Maintenance Performed: Maintenance at USGS-085 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
- 7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
- 8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

(stok-up)	Comments: The pump and pipe were replaced to their original depths. Deviation was performed on 11/26/02
-----------	--

Figure 2-50. Well modification log for USGS-085.

2.50 USGS-088

WELL ID: 537

1. Project Name: Site-wide Well Maintenance for FY 2003

2. Well Location: South of RWMC

3. Date Maintenance Performed: Started: 6/12/03 Completed: 6/24/03

- 4. Video Log Information: A video was performed on 6/23/03. The video revealed corrosion of the casing and the need to jet and clean the borehole.
- 5. Maintenance Performed: Maintenance at USGS-088 included removing the pump, pipe, and electrical assembly; jetting and cleaning the borehole; installing a new 3-hp, 3-phase pump; exchanging old galvanized pipe for 1.25-in., stainless-steel discharge line and a 1-in., stainless-steel access line; and installing new 8-gauge insulated electrical wire equipped with a 30A/600V plug (NEMA #17-L30).
- 6. Observations Recorded: Surface completion pads and impingement posts were in good condition.
- 7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: B. Reynolds/W. Jolley

Crew: G. Jensen, J. Lambert, D. Waddoups, L. Rosario, and T. Brower

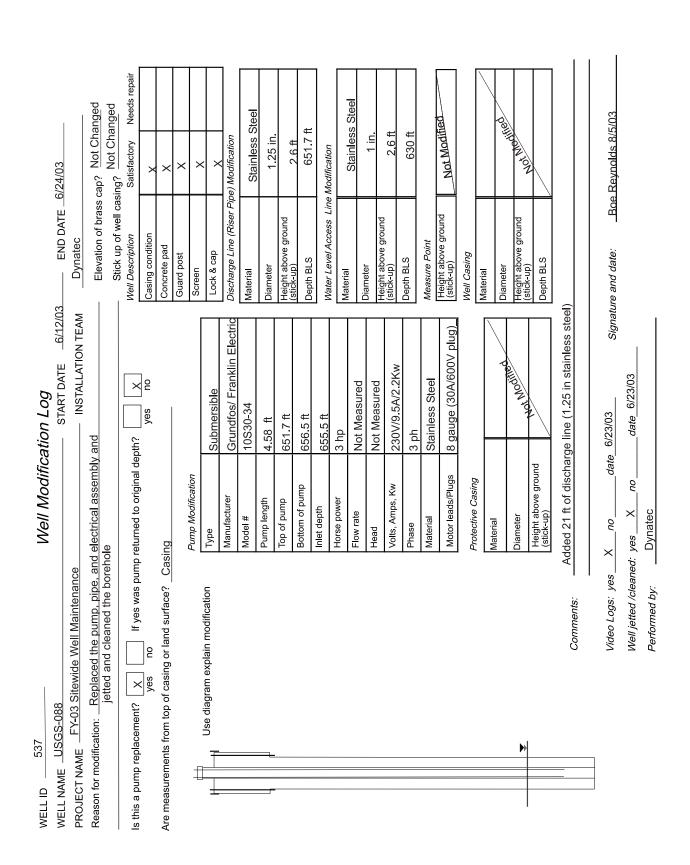


Figure 2-51. Well modification log for USGS-088.

2.51 USGS-111

WELL ID: 560

- 1. Project Name: Pump Removal and Deviation Logging for FY 2003
- 2. Well Location: South of INTEC
- 3. Date Maintenance Performed: Started: 11/13/02 Completed: 11/20/02
- 4. Video Log Information: Video logging was performed on 11/15/02.
- 5. Deviation Log Information: Deviation logging was performed on 11/15/02.
- 6. Maintenance Performed: Maintenance at USGS-111 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logging. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
- 7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
- 8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

WELL ID 560	Well Modification Log	n Log		11/20/02	
WELL INAME ————————————————————————————————————	tion Logaina FY 03	SIANI DAIE INSTALLATION TEAM			
Reason for modification: Pump removed to perform a de	a deviation log on the borehole.		Elevation of brass of	Flevation of brass can? Not Changed	
			Stick up of well cas	Stick in of well casing? Not Changed	
Is this a primp replacement?	If ves was primp returned to original depth?	A N	Well Description	Satisfactory Needs repair	
yes no		yes no	Casing condition	×	
Are measurements from top of casing or land surface?	NA		Concrete pad	×	
			Guard post	×	
	Pump Modification		Screen	×	
Use diagram explain modification	Type		Lock & cap	×	
	Manufacturer		Discharge Line (Riser Pipe) Modification	e) Modification	
	Model #		Material		
	Pump length		Diameter	palitied	
	Top of pump		Height above ground	TO MAN	
	Bottom of pump		Denth BLS		
	Inlet depth		Motor Low Account	Modification	
	Horse power		Water Level Access Line Mountainn	Modification	
	Flow rate	J. J	Material	Qo's	
	Head	DON DON	Diameter	MONTO	
	Volts, Amps, Kw	7704	Height above ground (stick-up)	MON	
			Depth BLS		
	1-11-12-13-13-13-13-13-13-13-13-13-13-13-13-13-		Measure Doint		
	Material		Height above dround	1	
	Motor leads/Plugs		(stick-up)	Not Modified	
	Protective Casing		Well Casing		
	Material		Material		
		803:	Diameter	Day Deligo	
Þ †	Diameter	A Module	Height above ground (stick-up)	A TON	
	Height above ground (stick-up)		Depth BLS		
Comments:	The pump and pipe were replaced to their original depths. Deviation log was performed on 11/15/02	eplaced to their original on 11/15/02	depths.		
	and				
Video Logs: yes	X no date 11	11/15/02Signatu	Signature and date: N	Mike Towler 12/10/02	1
Well jetted /cleaned: yes	X on	date			
Performed by:	Dynatec				

Figure 2-52. Well modification log for USGS-111.

2.52 USGS-112

WELL ID: 561

- 1. Project Name: Pump Removal and Deviation Logging for FY 2003
- 2. Well Location: South of INTEC
- 3. Date Maintenance Performed: Started: 11/14/02 Completed: 11/20/02
- 4. Video Log Information: Video logging was performed on 11/15/02.
- 5. Deviation Log Information: Deviation logging was performed on 11/15/02.
- 6. Maintenance Performed: Maintenance at USGS-112 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
- 7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
- 8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

WELLID 561	Well Modification Log	ion Log		11/20/02	
PROJECT NAME — Pump Removal and Borehole Deviation Logging FY 03	tion Logging FY 03	- SIGNI DAIL - NSTALL ATION TEAM	Dynater		
Reason for modification: Pump removed to perform a deviation log on the borehole.	eviation log on the bore		Elevation of brass cap? Not Changed	cap? Not Char	page Daed
			Stick up of well casing? Not Changed	Sing? Not Char	paged
Is this a pump replacement?	If yes was pump returned to original depth?	NA 5	Well Description	Satisfactory	Needs repair
yes		_	Casing condition	×	
Are measurements from top of casing or land surface?	NA		Concrete pad	×	
	:		Guard post	×	
	Pump Modification		Screen	×	
Use diagram explain modification	Туре		Lock & cap	×	
	Manufacturer		Discharge Line (Riser Pipe) Modification	oe) Modification	
	Model #		Material		
	Pump length		Diameter	pallik	pailied
	Top of pump		Height above ground	TO TO	
	Bottom of pump		Depth BLS	2	
	Inlet depth		City of the Color	Modification	
	Horse power		Water Level Access Line	Modification	
	Flow rate	Den J.	Material		
	Head	TOOL	Diameter	Modified	Aillier Aillier
	Volts. Amps. Kw	7707	Height above ground (stick-up)	TOM	
	Decent in position of the posi	V	Depth BLS		
	тпаѕе		-]		
	Material		Measure Point		1
	Motor leads/Plugs		Height above ground (stick-up)	Not Modified	
	Protective Casina		Well Casing		
	Motorial		Material		
	Material	90%	Diameter		fled
>	Diameter	AMIDOM to	Height above ground	A TOP	
	Height above ground (stick-up)	Ž	Depth BLS		
Comments:	The pump and pipe wer	The pump and pipe were replaced to their original locations.	ocations.		
	Deviation log was performed on 11/15/02	ormed on 11/15/02.			
Video Logs: yes	X no date	11/15/02 Signatu	Signature and date:	Mike Towler 12/10/02	10/02
Well jetted /cleaned: yes	yesx	date			
Performed by:	Dynatec				

Figure 2-53. Well modification log for USGS-112.

2.53 USGS-113

WELL ID: 562

- 1. Project Name: Pump Removal and Deviation Logging for FY 2003
- 2. Well Location: South of INTEC
- 3. Date Maintenance Performed: Started: 11/19/02 Completed: 11/20/02
- 4. Video Log Information: Video logging was performed on 11/20/02.
- 5. Deviation Log Information: Deviation logging was performed on 11/20/02.
- 6. Maintenance Performed: Maintenance at USGS-113 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
- 7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
- 8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

WELL IVAIWIE		11/19/02		11/20/02	
PROJECT NAME Fump Removal and Borenole Deviat	ation Logging FY 03	— SIANI DAIE ————————————————————————————————————	Dynatec		
Reason for modification: Pump removed to perform a deviation log on the borehole.	eviation log on the bore		Elevation of brass cap? Not Changed	cap? Not Chan	ged
			— Stick up of well casing? Not Changed	Sing? Not Chang	pag
Is this a pump replacement?	If ves was pump returned to original depth?	NA 5	Well Description	Satisfactory	Needs repair
yes		_	Casing condition	×	
Are measurements from top of casing or land surface?	NA		Concrete pad	×	
	:		Guard post	×	
	Pump Modification		Screen	ΑN	
Use diagram expiain modification	Type		Lock & cap	×	
	Manufacturer		Discharge Line (Riser Pipe) Modification	oe) Modification	
	Model #		Material		
	Pump length		Diameter	pallik	pall
	Top of pump		Height above ground	TONTON	
	Bottom of pump		Depth BLS		
	Inlet depth		Water evel Access ine Modification	Modification	
	Horse power		Materia		
	Flow rate	Jeny	Material		203
	Head	TO V	Diameter	MINDOW	
	Volts, Amps, Kw	D)O)	Height above ground (stick-up)	TOM	
	Phase	7	Depth BLS		
	Material		Measure Point		
	Motor leads/Dlugs		Height above ground	Not Modified	B
	Motor leads/Flugs		(stick-up) Well Casina		
	Protective Casing		loirotoM		
	Material		Dismotor		00,0
)	Diameter	Ballipoli	Diameter Height above ground	THOW TO	
*	Height above ground (stick-up)		(stick-up) Depth BLS	Ž	
Comments:	The pump and pipe were replaced to their	The pump and pipe were replaced to their original depths.	depths.		
	Deviation Tog was pen				
Video Logs: yes	X no date	11/20/02 Signatu	Signature and date:	Mike Towler 12/10/02	10/02
Well jetted /cleaned: yes	: yesnoX	date			
Performed by:	Dynatec				

Figure 2-54. Well modification log for USGS-113.

2.54 USGS-114

WELL ID: 563

- 1. Project Name: Pump Removal and Deviation Logging for FY 2003
- 2. Well Location: South of INTEC
- 3. Date Maintenance Performed: Started: 11/19/02 Completed: 11/20/02
- 4. Video Log Information: Video logging was performed on 11/20/02.
- 5. Deviation Log Information: Deviation logging was performed on 11/20/02.
- 6. Maintenance Performed: Maintenance at USGS-114 included removing the pump, discharge/access pipe, and electrical assembly. The USGS performed video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
- 7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
- 8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

WELL ID <u>563</u> WELL INAME USGS-114	Well Modification Log	<i>on Log</i> START DATE 11/19/02	END DATE	11/20/02	
PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03	iation Logging FY 03	— INSTALLATION TEAM	Dynatec		
Reason for modification: Pump removed to perform a deviation log on the borehole.	deviation log on the boreh	_	Elocation of bross	Elevation of brace care Not Changed	70
	•		- Elevation of well co	Stick in of wall cooling, Not Changed	. T
s this a num replacement?	If ves was mum returned to original denth?	[AN	Well Description	Satisfactory Nee	— Needs repair
yes		_	Casing condition	×	
Are measurements from top of casing or land surface?	NA		Concrete pad	×	
			Guard post	×	
acitoribile on airland memoria col -	Pump Modification		Screen	×	
Use diagram explain modification	Type		Lock & cap	×	
	Manufacturer		Discharge Line (Riser Pipe) Modification	oe) Modification]
	Model #		Material		
	Pump length		Diameter	pallik	
	Top of pump		Height above ground	TO TO	
	Bottom of pump		Depth BLS		
	Inlet depth		Water Level Acress Line Modification	Modification	
	Horse power		Motoriol		
	Flow rate) III e	Iviaterial	ď.	
	Head	ZOV.	Diameter	Mode	
	Volts, Amps, Kw	YOU	неідпт above ground (stick-up)		
	Phase		Depth BLS		
	Material		Measure Point		
	Motor leads/Plugs		Height above ground (stick-up)	Not Modified	
	Protective Casina		Well Casing		
	Material		Material	*	Silve
	ואומנפוומו	Do.	Diameter	W. Hillon	
Þ	Diameter	Modifie	Height above ground (stick-up)	A ST	
	Height above ground (stick-up)		Depth BLS		
	The pump and pipe were	The pump and pipe were replaced to their original depths. Deviation log was performed on 11/20/02	depths.		
 	Deviation Tog was perio				
Video Logs: yes_	X no date	11/20/02 Signat	Signature and date:	Mike Towler 12/10/02	,02
Well jetted /cleaned: yes	d: yesnoX	date			
Performed by:	Dynatec				

Figure 2-55. Well modification log for USGS-114.

2.55 USGS-115

WELL ID: 564

- 1. Project Name: Pump Removal and Deviation Logging for FY 2003
- 2. Well Location: South of INTEC
- 3. Date Maintenance Performed: Started: 11/19/02 Completed: 11/21/02
- 4. Video Log Information: Video logging was performed on 11/20/02.
- 5. Deviation Log Information: Deviation logging was performed on 11/20/02.
- 6. Maintenance Performed: Maintenance at this well included removal of the pump, discharge/access pipe, and electrical assembly. The USGS collected video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
- 7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
- 8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

WELL ID 564	Well Modification Log	ion Log		11/21/02	
PROJECT NAME Pump Removal and Borehole Deviation Logging FY 03	ion Logging FY 03	- CINSTALLATION TEAM	Dynatec		
Reason for modification: Pump removed to perform a deviation log on the borehole.	viation log on the bore		Elevation of brass cap? Not Changed	cap? Not Chan	jaed
			Stick up of well casing? Not Changed	Sing? Not Chang	pēd
Is this a pump replacement?	If yes was pump returned to original depth?	NA SE	Well Description	Satisfactory	Needs repair
yes no		_	Casing condition	×	
Are measurements from top of casing or land surface? NA	А		Concrete pad	×	
	:		Guard post	×	
	Pump Modification		Screen	ΑΝ	
Use diagram explain modification	Type		Lock & cap	×	
	Manufacturer		Discharge Line (Riser Pipe) Modification	oe) Modification	
	Model #		Material		
	Pump length		Diameter	pallir	Qaj
	Top of pump		Height above ground	TO TO TO	
	Bottom of pump		Depth BLS		
	Inlet depth		Mater I avel 4 crass 1 ina Modification	Modification	
	Horse power		Material		
	Flow rate	JOJJI	Material		003
	Head	DOM	Diameter	Mode	
	Volts, Amps, Kw	TON	Height above ground (stick-up)	A A	
	Phase	7	Depth BLS		
	Material		Measure Point		
	Motor leads/Plugs		Height above ground (stick-up)	Not Modified	
	Protective Casing		Well Casing		
	Principal de la company de la		Material		
	Material	40.	Diameter	3,12) day
>	Diameter	ATTIPOUT 45.	Height above ground		
	Height above ground (stick-up)		Depth BLS		
Comments:	he pump and pipe we	The pump and pipe were replaced to their original depths.	depths.		
ļ	Deviation log was perfo	ormed on 11/20/02.			
Video Logs: yes>	X no date	11/20/02Signatu	Signature and date:	Mike Towler 12/10/02	10/02
Well jetted /cleaned: yes	yesx	date			
Performed by:	Dynatec				

Figure 2-56. Well modification log for USGS-115.

2.56 USGS-122

WELL ID: 571

1. Project Name: INTEC Well Maintenance for FY 2003

2. Well Location: Southwest of INTEC

3. Date Maintenance Performed: Started: 5/13/03 Completed: 5/14/03

4. Video Log Information: Video logging was performed on 5/13/03.

- 5. Maintenance Performed: Maintenance at this well consisted of replacing the pump. The original pipe was used to install a new 1-hp, single-phase, Grundfos pump on 5/14/03. New 8-gauge electrical wire was equipped with a NEMA #17-L30 plug. The pump was installed to the original depth (472 ft bls) with a weep hole 20 ft above the top of the pump. It was energized to ensure proper operation on 5/14/03.
- 6. Observations Recorded: Surface completion pads and impingement posts were in good condition.
- 7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: Bob Empey

Crew: Gary Jensen and Louis Rosario

WELL ID571		Well Modification Log				
WELL NAME USGS-122			— START DATE 5/	5/13/03 END D	END DATE 5/14/03	1
PROJECT NAME _FY 03 Well Maintenance at INTEC	nance at INTEC		INSTALLATION TEAM	Dyn		
ation: Replaced th	e pump due to faulty production	aulty production		 	Elevation of brass cap? Not Changed	anged
				Stick on Soft	Stick in of well casing? Not Changed	anged
Is this a pump replacement?	If ves was pum	If ves was pump returned to original depth?	oth? X	Well Description	Satisfactory	Needs repair
┙.			J	Casing condition	×	
Are measurements from top of casing or land surface?		Casing		Concrete pad	×	
		Primo Modification		Guard post	×	
Use diagram explain n	modification	Type		Screen	×	
		adk.	Submersible	Lock & cap	X	
		Manufacturer	Grundfos	Discharge Line (F	Discharge Line (Riser Pipe) Modification	
		Model #	5S10-22	Material		
		Pump length	3 ft	Diameter	; i	pali
		Top of pump	469.5 ft	Height above ground	nd Not Meur	
		Bottom of pump	472.5 ft	Denth BLS	$\frac{1}{1}$	
		Inlet depth	471.5 ft	Mater Level Acce	Water Level Access Line Modification	
		Horse power	1 hp	Material		
		Flow rate	4 apm			
		Head	462 ft	Diameter	palified	pe
		Volts, Amps, Kw	240V/9.8A/2.4KW	(stick-up)		
		Phase	Single Phase	Depth BLS		
		Material	Stainless steel	Measure Point	Ī	\
		Motor leads/Plugs	8 gauge (30A, 600V plug	Height above ground (stick-up)	und Not Modified	ed
		Protective Casing		Well Casing	ļ	
		Material		Material		
				Diameter		pall
Þ		Diameter	pailibon	Height above ground (stick-up)	pu pu	
		Height above ground (stick-up)	Motar	Depth BLS		
		Installed a new pump	Installed a new pump, pipe and electrical cable. No other modifications were made.	le. No other modificati	ons were made.	
	Comments:	A weep hole was dri	A weep hole was drilled in the discharge line at 449.5 ft	at 449.5 ft		
Vid	Video Logs: yes	Xnodate_	5/13/03	Signature and date:	Boe Reynolds 8/5/03	5/03
We	Well jetted /cleaned: yes	ou_	Xdate			
Per	Performed by:	Dynatec		1		

Figure 2-57. Well modification log for USGS-122.

2.57 USGS-123

WELL ID: 572

1. Project Name: Well Maintenance for FY 2003

2. Well Location: Southwest of INTEC

3. Date Maintenance Performed: Started: 8/28/03 Completed: 9/21/03

- 4. Video Log Information: Video logging was performed on 8/28/03.
- 5. Maintenance Performed: Maintenance at this well included removal of the pump, discharge/access pipe, and electrical assembly. A video log was completed on 8/28/03. The pump, riser, water level access line, and wiring were reinstalled to 476.2 ft bls, 10 ft lower than the previous depth.
- 6. Observations Recorded: Surface completion pads and impingement posts were in good condition.
- 7. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: L. Lopez

9/21/03		ap? Not Changed	Stick up of well casing? Not Changed	Satisfactory Needs repair	×	×	×	×	×) Modification	4-1	Modifica	10 Z	476.2 ft	Wodification		Poly is	Moon		466 ft	10,55	Not Modified			The state of the s	101	USGS-123 was a video logged on August 28, 2003. The pump was not in the well at the time of the maintenance.	The pump, riser pipe and water level access line were reinstalled ten feet below the original depth. Pump top now	Lori Lopez 9/21/03		
103 END DATE	DVI	ı	Stick up of well casi	Well Description	Casing condition	Concrete pad	Guard post	Screen	Lock & cap	Discharge Line (Riser Pipe) Modification	Material	Diameter	Height above ground		Access Line	Material		Diameter Height about and	(stick-up)	Depth BLS	Measure Point	Height above ground (stick-up)	Well Casing	Material	Diameter Height above ground	(stick-up) Depth BLS	The pump was not in the	reinstalled ten feet belov	Signature and date: Lori L		
Well Modification Log	INSTALLATION TEAM			al depth?	yes					noutile d	AN TOX	.\	476.2 ft	479.7 ft	478.7 ft			De .		100				V.	Nothing		eo logged on August 28, 2003. T	and water level access line were	date 8/28/03 Signa	X date	
Well Mod		ed due to excessive draw d		If yes was pump returned to original depth?	-	urface? Land Surface	D. woodification	` _		Manufacturer	# IapoM	Pump length	Top of pump	Bottom of pump	Inlet depth	Horse power	Flow rate	Head	Volts, Amps, Kw	Phase	Material	Motor leads/Plugs	Protective Casing	Material	Diameter	Height above ground (stick-up)			at 476.2 It Video Logs: yes_Xno	Well jetted /cleaned: yesno_	леd by: Dynatec
WELL ID 572	PROJECT NAME Well Maintenance	Reason for modification: Pump was lowered due to excessive draw down		Is this a pump replacement?	yes	Are measurements from top of casing or land surface? Land Surface		military manufaction and interesting																		> *	Commente		Video L	Well jet	. Performed by:

Figure 2-58. Well modification log for USGS-123.

2.58 USGS-128

WELL ID: 1413

- 1. Project Name: Pump Removal and Deviation Logging for FY 2003
- 2. Well Location: Northwest of CFA
- 3. Date Maintenance Performed: Started: 11/19/02 Completed: 11/21/02
- 4. Video Log Information: Video logging was performed on 11/20/02.
- 5. Deviation Log Information: Deviation logging was performed on 11/20/02.
- 6. Maintenance Performed: Maintenance at this well included removal of the pump, discharge/access pipe, and electrical assembly. The USGS collected video and deviation logs. All well equipment (i.e., pump, pipe, and wire) was then reinstalled to its original depth.
- 7. Observations Recorded: Surface completion pads and impingement posts were in good condition.
- 8. Maintenance Subcontractor: Dynatec Drilling, Salt Lake City, UT

Field Lead: M. Towler/L. Lopez

WELL ID 1413	Well Modification Log	<i>In Log</i> START DATE 11/19/02	END DATE	11/21/02
PROJECT NAME -Pump Removal and Borehole Deviation Logging FY 03	ion Logging FY 03	— INSTALLATION TEAM	Dynatec	
Reason for modification: Pump removed to perform a dev	a deviation log on the borehole		Elevation of brass cap?	Not Changed
			Stick up of well casing?	Not Changed
s this a pump replacement?	ves was pump returned to original depth?	NA N	Well Description	Satisfactory Needs repair
yes		yes no	Casing condition	×
Are measurements from top of casing or land surface? NA	А		Concrete pad	×
			Guard post	×
	Pump Modification		Screen	NA
Use diagram explain modification	Type		Lock & cap	×
	Manufacturer		Discharge Line (Riser Pipe) Modification	Modification
	Wodel #		Material	
	Pump length		Diameter	pallir
	Top of pump		Height above ground	TO TO
	Bottom of pump		Catick-up)	
	Inlet depth		Inchill DEC	and it is not in a
	Horse power		Water Level Access Line Modification	Janication
	Flow rate	JOJA	אומנפוומו	Doi:
	Head	ON	Diameter	Modifica
	Volts, Amps, Kw	TON	(stick-up)	À
	Phase		Depth BLS	
	Material			
	Motor leads/Plugs		Height above ground (stick-up)	Not Modified
	Protective Casing		Well Casing	
	Material		Material	993
<u> </u>	Diameter	Politipon	Diameter Height above ground	THOUT TO
*	Height above ground (stick-up)	The state of the s	(stičk-up) Depth BLS	Ž
Comments:	The pump and pipe were replaced to there Deviation log was performed on 11/20/02.	The pump and pipe were replaced to there original locations. Deviation log was performed on 11/20/02.	locations.	
Video Logs: yes>	X nodate1	11/20/02Signatu	Signature and date: Mik	Mike Towler 12/10/02
Well jetted /cleaned: yes	yes no X date			
Performed by:	Dynatec			
	1			

Figure 2-59. Well modification log for USGS-128.

3. SUMMARY

Maintenance conducted in FY 2003 included 17 wells that were not on the work-off schedule. Any well that required work by Well Services personnel was considered as having been maintained. Unscheduled maintenance included the removal of materials from wells used for deviation logging conducted by the USGS. Wells in which fouling or bacterial growth were identified before or during logging were cleaned and jetted. Well Services was informed of wells with problems identified during routine sampling (e.g., bailers or weights lodged in the well), and those wells were added to the schedule and maintained as part of the routine maintenance. Although those wells were not scheduled for any maintenance, the maintenance conducted on them is included in this report to record the completed actions and avoid duplication of efforts in coming years. Wells receiving unscheduled maintenance are listed below.

The concrete surface pads of several wells identified in the previous section were replaced. The brass caps for these wells (i.e., PW-2, PW-4, and USGS-048) will require a survey to measure the new position of the cap. Well USGS-073 was modified by the addition of surface casing. The measuring point for USGS-073 should be surveyed to provide a more accurate height than may be obtained by normal field measurements.

Fourteen wells included in the work-off schedule were not maintained due to the number of wells requiring priority maintenance. These 14 wells will be rescheduled. Wells scheduled but not maintained are PW-11, PW-12, TANT-INJ-A-13, USGS-21, USGS-46, USGS-50, USGS-53, USGS-54, USGS-55, USGS-56, USGS-65, USGS-67, and USGS-71.

Seventeen wells that were not scheduled for maintenance in FY 2003 were maintained as priority wells. These wells should be reviewed against the work-off schedule to ensure that maintenance completed during FY 2003 is not duplicated in subsequent years. Unscheduled wells that were maintained are Fire Station, ICPP-1782, ICPP-1783, ICPP-1800, ICPP-1829, ICPP-1831, ICPP-MON-A-230, ICPP-MON-P-018, ICPP-MON-P-020, ICPP-SCI-P-249, LF2-08, M10S (abandoned well), SOUTH-MON-A-001, TANT-MON-A-013, TANT-MON-A-014, USGS-009, and USGS-122.

4. REFERENCES

INEEL, 2003, *Well Maintenance Work-off Schedule for Fiscal Years 2003, 2004, and 2005,* INEEL/EXT-02-01462, Rev. 0, Idaho National Engineering and Environmental Laboratory, January 2003.